```
=> s amino acid

        540550 AMINO
       2119426 ACID
L4      283570 AMINO ACID
                 (AMINO(W)ACID)

=> s technetium or tc99m or 99mtc or tc.sup.99m or sup.99m.tc

         10284 TECHNETIUM
            30 TC99M
          5056 99MTC
         58802 TC
           695 SUP
          4751 99M
             0 TC.SUP.99M
                 (TC(W)SUP(W)99M)
           695 SUP
          4751 99M
         58802 TC
             0 SUP.99M.TC
                 (SUP(W)99M(W)TC)
L5       11396 TECHNETIUM OR TC99M OR 99MTC OR TC.SUP.99M OR SUP.99M.TC

=> s l4 and l5

L6         104 L4 AND L5

=> s label? or radiolabel?

        282098 LABEL?
         27117 RADIOLABEL?
L7      298439 LABEL? OR RADIOLABEL?

=> d his


     (FILE 'HOME' ENTERED AT 15:05:35 ON 14 SEP 1997)

     FILE 'REGISTRY' ENTERED AT 15:05:43 ON 14 SEP 1997
L1                STRUCTURE UPLOADED
L2             16 S L1 SSS FULL

     FILE 'CAPLUS' ENTERED AT 15:07:28 ON 14 SEP 1997
L3              4 S L2
L4         283570 S AMINO ACID
L5          11396 S TECHNETIUM OR TC99M OR 99MTC OR TC.SUP.99M OR SUP.99M.T
L6            104 S L4 AND L5
L7         298439 S LABEL? OR RADIOLABEL?

=> s l7 (2w)l4

L8          1392 L7 (2W)L4

=> s l5 and l8
```

L9 8 L5 AND L8

=> s l9 not l3

L10 8 L9 NOT L3

=> d l10 1-8 cbib, ab

L10 ANSWER 1 OF 8 CAPLUS COPYRIGHT 1997 ACS
1996:343819 Document No. 125:29193 Reduction of renal uptake of monoclonal antibody fragments by amino acid infusion. Behr, Thomas M.; Becker, Wolfgang S.; Sharkey, Robert M.; Juweid, Malik E.; Dunn, Robert M.; Bair, Hans-J.; Wolf, Friedrich G.; Goldenberg, David M. (Garden State Cancer Center, Center for Molecular Medieine and Immunology, Newark, NJ, 07103-2763, USA). J. Nucl. Med., 37(5), 829-833 (English) 1996. CODEN: JNMEAQ. ISSN: 0161-5505.

AB The renal uptake of radiolabeled antibody fragments and peptides presents a problem in radioimmunodetection and therapy, compromising lesion sensitivity, esp. with intracellularly-retained isotopes. Previously, we showed that cationic amino acids and their derivs. are capable of significantly reducing kidney uptake in animals. We report our initial clin. results of successful renal uptake redn. in five patients who underwent cancer radioimmunodetection with **99mTc**-anti-CEA Fab' fragments. The patients were infused with two liters of a com.-available nutritive amino acid soln. (contg. approx. 2.25 g/L lysine-glutamate and 2.50 g/L arginine), whereas 75 control patients received the same vol. of saline (quantification of organ and tumor kinetics from conjugate whole-body views by ROI technique). The renal uptake in the amino acid group was significantly lower ($p < 0.05$) than in the control group (11.1% injected dose vs. 17.7% injected dose at 24 h postinjection), whereas the uptake of all other organs remained unaffected. Gel filtration chromatog. of the urine taken from amino-acid-treated patients showed that a significantly higher amt. of excreted activity was bound to intact Fab' (53% of excreted activity) in contrast to only less than 10% in the control group. The renal uptake of monoclonal antibody fragments in patients can be reduced significantly by amino acid infusion, even at considerably lower doses than those that were safe and effective in animals. As was found in animals, the mechanism seems to rely on an inhibition of the re-absorption of tubularly-filtered proteins by the proximal tubule cells. These results encourage further clin. trials to lower the renal uptake experienced in radioimmunodetection, as well as in therapeutic trials with antibody fragments and peptides.

L10 ANSWER 2 OF 8 CAPLUS COPYRIGHT 1997 ACS
1995:783642 Document No. 123:221932 Reduction of the renal uptake of radiolabeled monoclonal antibody fragments by cationic amino acids and their derivatives. Behr, Thomas M.; Sharkey, Robert M.; Juweid, Malik E.; Blumenthal, Rosalyn D.; Dunn, Robert M.; Griffiths, Gary L.; Bair, Hans-J.; Wolf, Friedrich G.; Becker, Wolfgang S.; Goldenberg, David M. (Garden State Cancer Cent. Cent. Mol. Med. Immunol., Newark, NJ, 07103-2763, USA). Cancer Res., 55(17), 3824-34 (English) 1995. CODEN: CNREA8. ISSN: 0008-5472.

AB The renal uptake of radiolabeled antibody fragments and peptides is a problem in radioimmunodetection and radioimmunotherapy, esp. with intracellularly retained radiometals. The aim of this study was to develop suitable methods to reduce this kidney uptake. BALB/c mice or nude mice bearing the human GW-39 colon carcinoma xenograft were given i.p. injections of basic amino acids or a range of different basic amino acid derivs., amino sugars, as well as cationic peptides. The effect of these agents on the biodistribution of Fab' and F(ab')2 fragments of different mAbs radiolabeled with **99mTc**, 188Re, 111In, 88Y, or 125I was studied. Tumor and

organ uptake was detd. and compared to untreated mice. The kidney uptake of Fab' fragments was reduced 5-6-fold in dose-dependent manner as compared to untreated controls. The uptake in all other organs, as well as tumor, was unaffected. A similar redn. in renal retention was seen for all other intracellularly retained isotopes, as well as for F(ab')2 fragments. D- And L-isomers of lysine were equally effective whether given i.p. or p.o. D-Glucosamine was effective, but its N-acetyl derivs. was not. Basic polypeptides (e.g., poly-L-lysine) were also effective; their potency increased with increasing mol. wt. HPLC of the urine taken from treated animals showed the excretion of intact Fab', in contrast to mostly low-mol.-wt. metabolites in the control group. These studies indicate that a variety of basic compds. is capable of inhibiting the tubular resorption of peptides and proteins, thus lowering the kidney uptake of antibody fragments significantly. On a mol. basis, the effect seems to essentially rely on the presence of a pos. charged amino group. By reducing renal retention of antibody fragments, their role as imaging and therapeutic agents may be expanded.

L10 ANSWER 3 OF 8 CAPLUS COPYRIGHT 1997 ACS

1994:453191 Document No. 121:53191 The safety and pharmacokinetics in adult subjects of an intravenously administered **99mTc-labeled** 17 **amino acid** peptide (CYT-379).
Ben-haim, Simona; Kahn, Daniel; Weiner, George J.; Madsen, Mark T.; Waxman, Alan D.; Williams, Cynthia M.; Clarke-Peason, Daniel; Coleman, R. Edward; Maguire, Robert T. (Dep. Radiol., Univ. Iowa Coll. Med., Iowa City, IA, 52242, USA). Nucl. Med. Biol., 21(2), 131-42 (English) 1994. CODEN: NMBIEO. ISSN: 0883-2897.

AB A phase I study was designed to evaluate the safety and pharmacokinetics of a novel platelet reactive peptide, peptide acetyl-SYGRGDVRGDFKCTCCA-amide (CYT-379), which binds to the fibrinogen receptor of activated platelets and also binds to **99mTc**. Eleven subjects with suspected deep venous thrombosis had 0.1, 0.5 or 1.0 mg of the peptide infused i.v. Pharmacokinetics were detd. by assaying blood samples in 6 of the 11 subjects and by urine sampling in 5 of these 6 subjects. Plasma and whole blood time-activity curves demonstrated an initial fast component with half-time clearance of 0.2 and 0.2 h and a slow component with half-time clearance of 2.8 and 2.7 h (mean for plasma and whole blood, resp.). Urine clearance was 22.6 and 10.8 mL/min when normalized to body surface area. The cumulative excretion of **99mTc**-CYT-379 in the urine was 16.6, 45.6 and 45.6% of the administered dose over 0-2, 0-12 and 0-24 h after radiopharmaceutical injection, resp. Images obtained in 11 subjects immediately, at 1-2, and 4-6 h after injection were evaluated for abnormalities and were compared with duplex Doppler ultrasonog. **99mTc**-CYT-379 images were pos. in only 3 of 7 subjects who had a pos. duplex Doppler examn. in at least one lower extremity. One subject with neg. duplex Doppler had also neg. **99mTc**-CYT-379 scintigraphy. One subject with neg. scintigraphy and two other subjects with pos. scintigraphy had no other imaging studies of the deep venous system performed. No adverse reactions were obsd. during or after the infusion of **99mTc**-CYT-379. **99mTc**-CYT-379 appears to be a safe radiopharmaceutical and demonstrates rapid clearance from plasma in human subjects.

L10 ANSWER 4 OF 8 CAPLUS COPYRIGHT 1997 ACS

1986:586740 Document No. 105:186740 Biochemistry of derivatives of amino acid with [103Ru]ruthenocene. Comparison with 131I-hippuran.
Wenzel, M.; Park, I. H. (Pharm. Inst., Freien Univ. Berlin, Berlin-Dahlem, D-1000/33, Fed. Rep. Ger.). Appl. Radiat. Isot., 37(6), 491-5 (German) 1986. CODEN: ARISEF. ISSN: 0883-2889.

AB [103Ru]-**labeled** ruthenocene **amino acid** derivs. (I) were prepd. by an exchange reaction of

ruthenocenoylglycine, ruthenocenoylalanine, ruthenocenoylmethionine and 1-methylruthenocenoylglycine and its Me ester with 103Ru. The organ distribution of the labeled compds. was compared with that of [131I]hippuren. Kidney concns. of all the labeled compds. except [103Ru]ruthenocenenoylmethionine were extremely high. Ruthenocenoylmethionine showed a greater affinity for liver than for kidney but not for pancreas. The elimination rate of I was comparable to the of [131I]hippuren. The advantages of 97Ru-labeled pharmaceuticals over **99mTc**-complexes and 123I compds. are discussed. Since **99mTc** complexes contain a hydrophilic chelate their chem. variations are limited. The iodine-23-labeled compds. have shorter half-lives than the 97Ru-radiopharmaceuticals.

L10 ANSWER 5 OF 8 CAPLUS COPYRIGHT 1997 ACS

1983:139830 Document No. 98:139830 In-vivo assessment of amino acid transport in tumors by using nitrogen-13- and carbon-11-labeled compounds. Knapp, Wolfram H.; Helus, Frantisek; Oberdorfer, Franz; Ostertag, Hermann; Sinn, Hansjoerg; Matzku, Siegfried; Wolber, Gerd (Inst. Nuclear Med., Ger. Cancer Res. Cent., Heidelberg, D-6900, Fed. Rep. Ger.). Dev. Cancer Res., 7(Membr. Tumour Growth), 533-9 (English) 1982. CODEN: DCREDD. ISSN: 0163-6146.

AB Positron imaging with L-[13N]glutamate was performed in rats with leg fractures and with transplanted tumors and in patients with malignant diseases, benign bone lesions, and osteomyelitis. [11C]butanol was used to study local blood supply noninvasively, and **99mTc**- and 121I-labeled microspheres were used to invasively assess blood flow. In patients i.v. injected with 4-8 mCi L-[13N]glutamate, the highest tumor-to-whole body uptake was obsd. 3-10 min postinjection, and 95% of the injected activity was cleared from the blood after 6-7 min. The **radiolabeled amino acid** showed no increased uptake in nonmalignant bone diseases, was taken up in inflammation states, and showed a near steady-state or only slow loss in tumors. In rats, i.m. transplanted tumors showed a 1.5-8.0-fold uptake of [13N]glutamate compared with normal muscle, and a 3-fold activity was obsd. in surrounding soft tissue 2 days after bone fracture as compared with a contralateral sample. Microspheres and [11C]butanol showed the same uptake excess in the injured leg as [13N]glutamate but a low excess in tumor (6.0 and 3.2 for [11C]butanol and 131I, resp., vs. 7.0 for 13N). Evidently, blood flood and not transport mechanisms is mainly responsible for [13N]glutamate tumor uptake.

L10 ANSWER 6 OF 8 CAPLUS COPYRIGHT 1997 ACS

1980:610320 Document No. 93:210320 Composition and method for labeling red blood cells with radioactive **technetium**: process and kit for preparing the composition. Kato, Makoto; Hazue, Masaaki (Nihon Medi-Physics Co., Ltd., Japan). Eur. Pat. Appl. EP 11301 800528, 24 pp. (English). CODEN: EPXXDW. PRIORITY: JP 78-143956 781120.

AB A nonradioactive compn. for intracorporeal labeling of red blood cells with **99mTc** comprises a pyridoxal, a Sn2+ salt, and .gtoreq.1 .alpha.-amino acid. The compn. is administered through a vein and assures efficient intracorporeal red blood cell labeling with **99mTc** which is subsequently administered through the vein. A compn. was prepd. contg. pyridoxal-HCl [65-22-5] 3665, anhyd. SnCl2 37.9, L-(+)-ascorbic acid (stabilizer) 70 mg in 100 mL H2O to which was added L-isoleucine [73-32-5] 2361 mg/100 mL H2O with NaOH 1440 mg. Administration of this soln. followed by administration of saline soln. of Na pertechnetate-**99mTc** resulted in excellent intracorporeal labeling of red blood cells in rats. The nonradioactive compns. showed good stability in soln. and lyophilized form and low toxicity.

L10 ANSWER 7 OF 8 CAPLUS COPYRIGHT 1997 ACS

1977:498177 Document No. 87:98177 Preparation of **technetium**

-99m-**labeled** pyridoxal-**amino acid** complexes and their evaluation. Chiotellis, E.; [redacted]bramanian, G.; McAfee, J. G. ([redacted]l. Res. Cent. "Democritos", Athens, Greece). Int. J. Nucl. Med. Biol., 4(1), 29-41 (English) 1977. CODEN: IJNMCI.

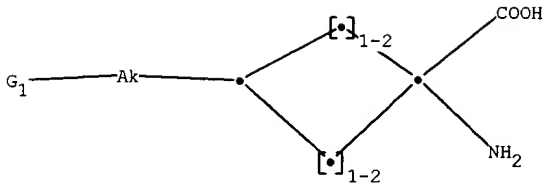
AB Five new 99Tcm-pyridoxal(Py)-amino acid complexes for hepatobiliary imaging in mice were studied in comparison with 99Tcm-Py-glutamateand 131I-labeled Rose Bengal. These 99Tcm compds. showed a biodistribution similar to 99Tcm-Py-glutamate and none of them was as good as 131I-labeled Rose Bengal. However, some of the complexes required a shorter prepn. time than 99Tcm-Py-glutamate. 99Tcm-Py-leucine and 99Tcm-Py-phenylalanine prepd. with only 15 min and 30 min of autoclaving, resp., gave a relatively fast gall bladder visualization as compared to 99Tcm-Py-glutamate. Their distribution study in mice also indicated relatively fast blood clearance and lower soft tissue uptake of the activity than the glutamate complex. In comparative imaging studies, the 99Tcm-Py-amino acid complexes were superior to the com. available 99Tcm hepatobiliary agents. However, further investigation of 99Tcm-Py-leucine and 99Tcm-Py-phenylalanine in higher animals and humans will be necessary to confirm their clin. utility.

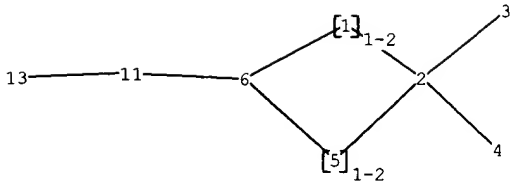
L10 ANSWER 8 OF 8 CAPLUS COPYRIGHT 1997 ACS

1977:167194 Document No. 86:167194 **99mTc**-1-aminocyclopentane carboxylic acid: tumor and tissue distribution results on a **labeled** cytotoxic **amino acid**. Heindel, Ned D.; Risch, Victor R.; Adams, William E.; Honda, Takashi; Brady, Luther W. (Cent. Health Sci., Lehigh Univ., Bethlehem, Pa., USA). Int. J. Appl. Radiat. Isot., 27(11), 621-5 (English) 1976. CODEN: IJARAY.

AB A **99mTc** chelate of a cytotoxic unnatural amino acid, 1-aminocyclopentanecarboxylic acid, was prepd. and its tumor and tissue distribution evaluated in hamsters due to its potential as a pancreatic tumor scanning agent. Elevated renal and liver levels were obsd. and the distribution displayed marked differences from a 14C analog.

STN Structure : 744444.st





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ring nodes :
1 2 5 6
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ring bonds :
1-2 1-6 2-5 5-6
exact/norm bonds :
1-2 1-6 2-4 2-5 5-6 6-11 11-13
exact bonds :
2-3

G1:S,N

Match level :
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FILE 'REGISTRY' ENTERED AT 15:05:43 ON 14 SEP 1997
L1 STRUCTURE UPLOADED
L2 16 S L1 SSS FULL

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L3 4 S L2

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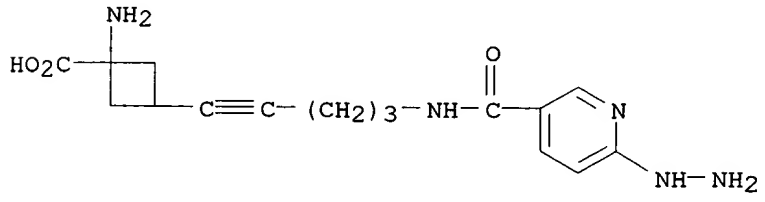
L3 ANSWER 1 OF 4 CAPLUS COPYRIGHT 1997 ACS
1997:436060 Document No. 127:51001 Amino acid analogs for tumor imaging. Goodman, Mark M.; Shoup, Timothy (Emory University, USA). PCT Int. Appl. WO 9717092 A1 970515, 81 pp. DESIGNATED STATES: W: AU, CA, JP; RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 96-US18455 961108. PRIORITY: US 95-554906 951109.

AB Amino acid analogs R2CyHzC(CH2R1)C(NH2)CO2H [R1 = X (F, I, Br, or their radioisotopes, or At), XCH:CH, haloalkyl, or certain 99mTc-complex contg. residues; R2 = H, haloalkyl, or certain 99mTc-complex contg. residues; y = 1, 2; z = 1-4] were prepd. for use in tumor imaging by positron emission tomog. An esp. preferred amino acid compd. is [18F]-1-amino-3-fluorocyclobutane-1-carboxylic acid (FACBC), which was prepd. from benzyl chloride, epichlorohydrin, and di-Et malonate. The distribution of radioactivity in tumor bearing rats was studied using FACBC.

IT **191111-51-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(amino acid analogs for tumor imaging)

RN 191111-51-0 CAPLUS

CN Cyclobutanecarboxylic acid, 1-amino-3-[5-[[(6-hydrazino-3-pyridinyl)carbonyl]amino]-1-pentynyl]- (9CI) (CA INDEX NAME)

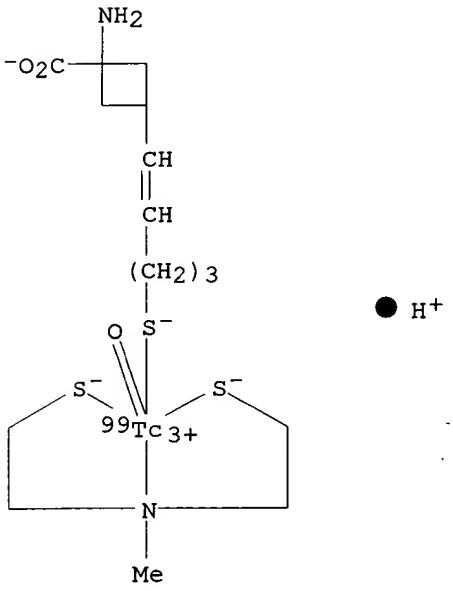


IT **191111-39-4P 191111-42-9P 191111-45-2P**
191111-48-5P 191111-50-9P 191111-51-0DP,
complexes with technetium-99 **191111-52-1DP**, complexes with technetium-99 **191166-96-8DP**, complexes with technetium-99 **191166-97-9DP**, complexes with technetium-99
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(amino acid analogs for tumor imaging)

RN 191111-39-4 CAPLUS

CN Technetate(1-)-99Tc, [1-amino-3-[5-(mercapto-.kappa.S)-1-

pentenyl]cyclobutanecarboxylato(2-)][[2,2'-(methylimino-
.kappa.N)bis[ethanethiolato-.kappa.S]](2-)]oxo-, hydrogen (9CI) (CA
INDEX NAME)



RN 191111-42-9 CAPLUS
CN Technetate(1-)-99Tc, [1-amino-3-[5-(mercapto-
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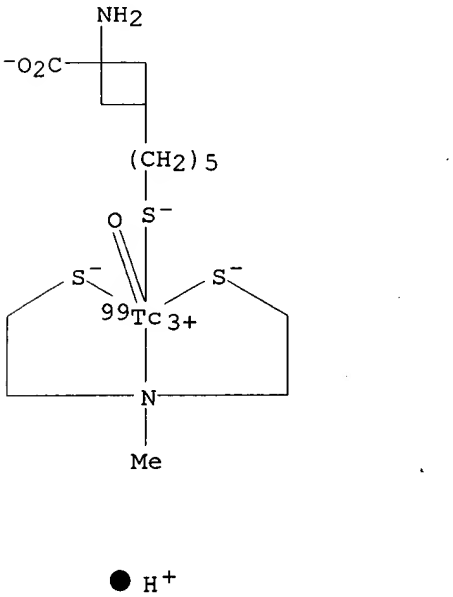
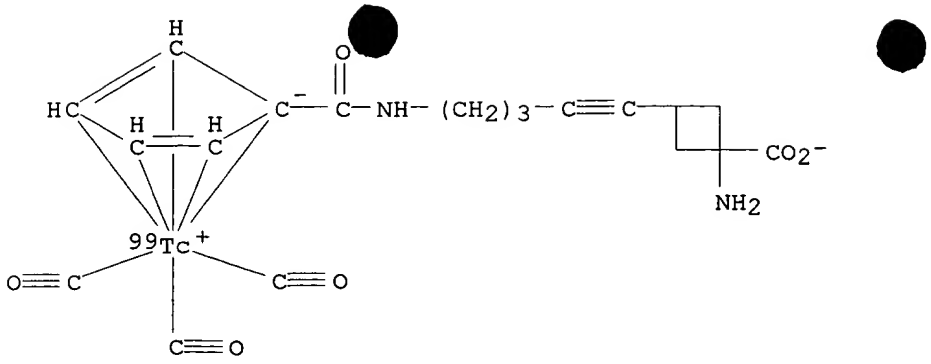
.kappa.N)bis[ethanethiolato-.kappa.S]](2-)]oxo-, hydrogen (9CI) (CA
INDEX NAME)

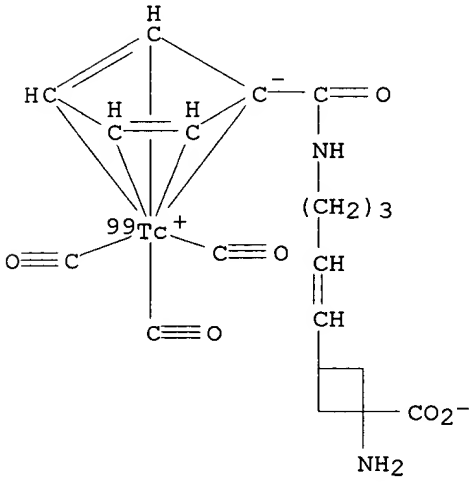


RN 191111-45-2 CAPLUS
CN Technetate(1-)-99Tc, [(1,2,3,4,5-.eta.)-1-[[[5-(3-amino-3-
carboxylatocyclobutyl)-4-pentynyl]amino]carbonyl]-2,4-cyclopentadien-
1-yl]tricarbonyl-, hydrogen (9CI) (CA INDEX NAME)



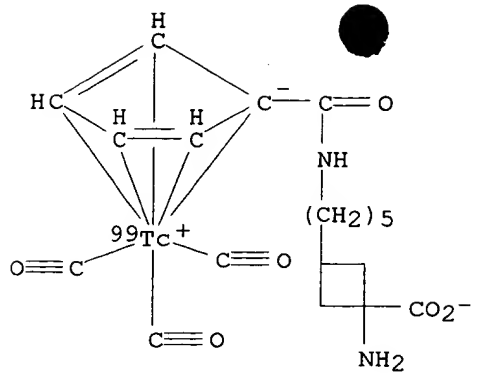
● H^+

RN 191111-48-5 CAPLUS
CN Technetate(1-)-99Tc, [(1,2,3,4,5-.eta.)-1-[[[5-(3-amino-3-carboxylatocyclobutyl)-4-pentenyl]amino]carbonyl]-2,4-cyclopentadien-1-yl]tricarbonyl-, hydrogen (9CI) (CA INDEX NAME)



● H^+

RN 191111-50-9 CAPLUS
CN Technetate(1-)-99Tc, [(1,2,3,4,5-.eta.)-1-[[[5-(3-amino-3-carboxylatocyclobutyl)pentyl]amino]carbonyl]-2,4-cyclopentadien-1-yl]tricarbonyl-, hydrogen (9CI) (CA INDEX NAME)



RN 191111-51-0 CAPLUS
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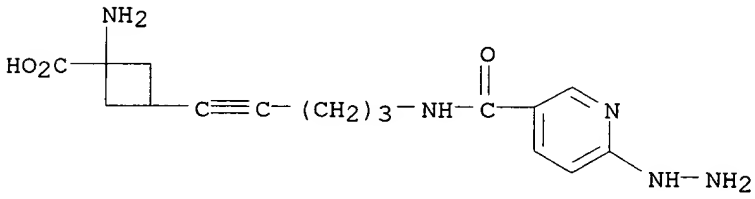
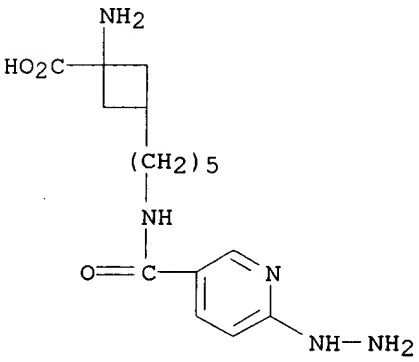
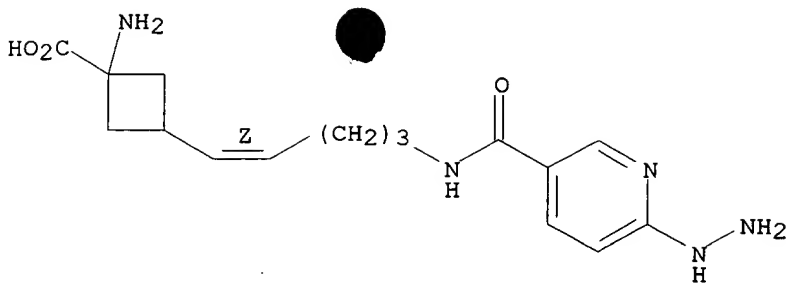


RN 191111-52-1 CAPLUS
CN Cyclobutanecarboxylic acid, 1-amino-3-[5-[[(6-hydrazino-3-pyridinyl)carbonyl]amino]pentyl]- (9CI) (CA INDEX NAME)



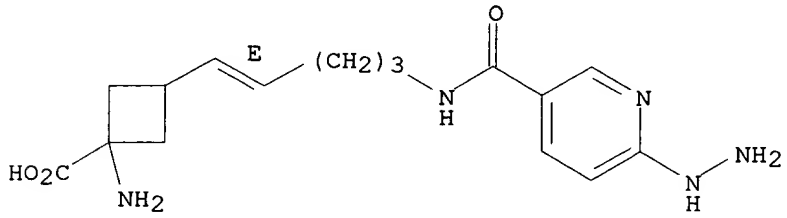
RN 191166-96-8 CAPLUS
CN Cyclobutanecarboxylic acid, 1-amino-3-[5-[[(6-hydrazino-3-pyridinyl)carbonyl]amino]-1-pentenyl]-, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



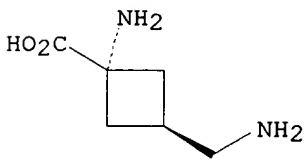
RN 191166-97-9 CAPLUS
CN Cyclobutanecarboxylic acid, 1-amino-3-[5-[[(6-hydrazino-3-pyridinyl)carbonyl]amino]-1-pentenyl]-, (E)- (9CI) (CA INDEX NAME)

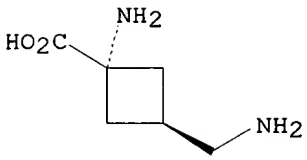
Double bond geometry as shown.



L3 ANSWER 2 OF 4 CAPLUS COPYRIGHT 1997 ACS
1997:412417 Document No. 127:90136 2,4-Methano amino acids, novel constituents of bioactive peptides: tuftsin as a model. Gershonov, Eytan; Granoth, Ruth; Tzehovel, Esther; Gaoni, Yehiel; Fridkin, Mati (The Department of Organic Chemistry, The Weizmann Institute of Science, Rehovot, 76100, Israel). Innovation Perspect. Solid Phase Synth. Comb. Libr., Collect. Pap., Int. Symp., 4th, Meeting Date 1995, 373-376. Editor(s): Epton, Roger. Mayflower Scientific: Birmingham, UK. (English) 1996. CODEN: 64ONA9.
AB Four novel 2,4-methano amino acids (MAA) were synthesized. These compds., contg. 1-amino-cyclobutane-1-carboxylic acid moiety, are analogs of lysine, ornithine, arginine and proline. The above MAA, as well as the MAA analog of homothreonine, were incorporated by solid phase synthesis into the chain of the immunomodulating peptide tuftsin, Thr-Lys-Pro-Arg. The tuftsin-like immunostimulant potency, i.e. capacity to augment secretion of interleukin-6 from mouse peritoneal macrophages, is preserved in some analogs and even enhanced. Likewise, resistance toward degrdn. by enzymes present in human serum was also obsd.
IT **184103-35-3 184103-39-7**
RL: RCT (Reactant)
(methano amino acids as novel constituents of bioactive peptides using tuftsin as a model in relation to immunostimulant activity and degrdn. by enzymes in human serum)
RN 184103-35-3 CAPLUS
CN Cyclobutanecarboxylic acid, 1-amino-3-(aminomethyl)-, trans- (9CI) (CA INDEX NAME)

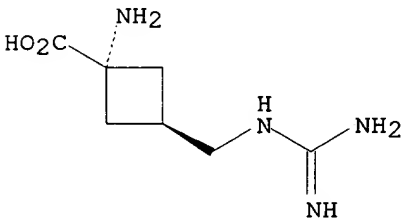
Relative stereochemistry.





RN 184103-39-7 CAPLUS
CN Cyclobutanecarboxylic acid, 1-amino-3-[[(aminoiminomethyl)amino]methyl]-, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.



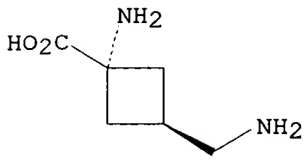
L3 ANSWER 3 OF 4 CAPLUS COPYRIGHT 1997 ACS
1996:656704 Document No. 126:14319 1-Aminocyclobutanecarboxylic Acid Derivatives as Novel Structural Elements in Bioactive Peptides: Application to Tuftsin Analogs. Gershonov, Eytan; Granoth, Ruth; Tzehoval, Esther; Gaoni, Yehiel; Fridkin, Mati (Department of Organic Chemistry, Weizmann Institute of Science, Rehovot, 76100, Israel). J. Med. Chem., 39(24), 4833-4843 (English) 1996. CODEN: JMCMAR. ISSN: 0022-2623. OTHER SOURCES: CJACS-IMAGE; CJACS. Publisher: American Chemical Society.

AB Four novel 2,4-methano amino acids (MAAs, 1-aminocyclobutane-1-carboxylic acids) were synthesized. These include the basic MAA analogs of lysine, ornithine, and arginine and the neutral methanovaline, related to proline. The above MAAs, as well as the MAA analog of homothreonine, were incorporated into the peptide chain of the immunomodulatory peptide tuftsin, Thr-Lys-Pro-Arg, known to enhance several biol. activities mediated by phagocytic cells. The synthetic methano tuftsin analogs were assayed for their ability to stimulate interleukin-6 (IL-6) secretion by mouse peritoneal macrophages and for their stability in human serum toward enzymic degrdn. It was found that, at 2 .times. 10-7 M, [MThr1]tuftsin and an isomer of [MVal3]tuftsin were considerably more active than the parent peptide in augmentation of cytokine release. [MOrn2]Tuftsin was equally potent. The analogs [MThr1]tuftsin and [MOrn2]tuftsin, both pertaining to the proteolytically sensitive Thr-Lys bond of tuftsin, exhibited high resistance to enzymic hydrolysis as compared to tuftsin. Using specific rabbit anti-tuftsin antibodies in a competitive ELISA revealed that none of the MAA analogs can cross-react with tuftsin. It may indicate that the peptides assume global structures different than that of tuftsin.

IT **184103-35-3P 184103-39-7P 184103-62-6P 184103-64-8P 184103-71-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (intermediate; prepn. and biol. activity of aminocyclobutanecarboxylic acid derivs. of tuftsin)

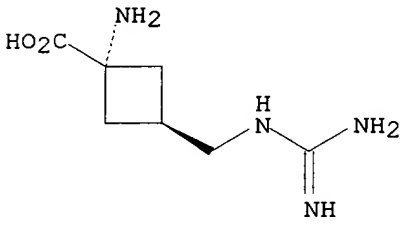
RN 184103-35-3 CAPLUS
CN Cyclobutanecarboxylic acid, 1-amino-3-(aminomethyl)-, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.

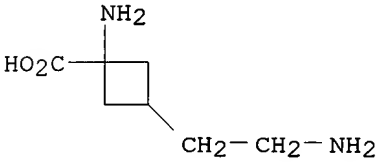


RN 184103-39-7 CAPLUS
CN Cyclobutanecarboxylic acid, 1-amino-3-[[(aminoiminomethyl)amino]methyl]-, trans- (9CI) (CA INDEX NAME)

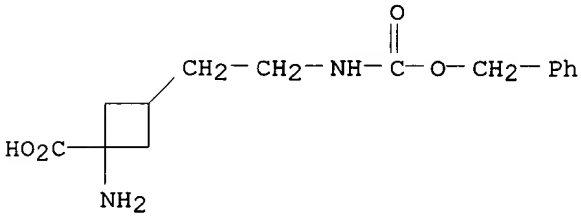
Relative stereochemistry.



RN 184103-62-6 CAPLUS
CN Cyclobutanecarboxylic acid, 1-amino-3-(2-aminoethyl)- (9CI) (CA INDEX NAME)

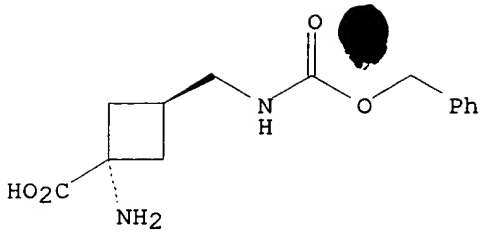


RN 184103-64-8 CAPLUS
CN Cyclobutanecarboxylic acid, 1-amino-3-[2-[[(phenylmethoxy)carbonyl]amino]ethyl]- (9CI) (CA INDEX NAME)



RN 184103-71-7 CAPLUS
CN Cyclobutanecarboxylic acid, 1-amino-3-[[[(phenylmethoxy)carbonyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L3 ANSWER 4 OF 4 CAPLUS COPYRIGHT 1997 ACS

1995:505550 Document No. 123:144546 Synthesis of aminocyclobutane mono- and dicarboxylic acids and derivatives thereof from (phenylsulfonyl)bicyclobutanes. Gaoni, Yehiel (Dep. Org. Chem., Weizmann Inst. Sci., Rehovot, 76100, Israel). Org. Prep. Proced. Int., 27(2), 185-212 (English) 1995. CODEN: OPPIAK. ISSN: 0030-4948. OTHER SOURCES: CASREACT 123:144546.

AB Syntheses of cis- and trans-1-amino-1,3-cyclobutanedicarboxylic acids and cis- and trans-1-amino-3-(hydroxymethyl)-1-cyclobutanecarboxylic acids are described.

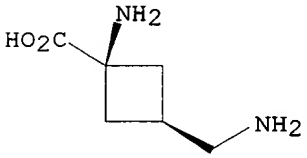
IT **166667-28-3P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of aminocyclobutane mono- and dicarboxylic acids and derivs. thereof from (phenylsulfonyl)bicyclobutanes)

RN 166667-28-3 CAPLUS

CN Cyclobutanecarboxylic acid, 1-amino-3-(aminomethyl)-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



1977:498177 Document No. 87:98177 Preparation of technetium-99m-labeled pyridoxal-amino acid complexes and their evaluation. Chiotellis, E.; Subramanian, G.; McAfee, J. G. (Nucl. Res. Cent. "Democritos", Athens, Greece). Int. J. Nucl. Med. Biol., 4(1), 29-41 (English) 1977. CODEN: IJNMCI.

AB Five new 99Tcm-pyridoxal(Py)-amino acid complexes for hepatobiliary imaging in mice were studied in comparison with 99Tcm-Py-glutamateand 131I-labeled Rose Bengal. These 99Tcm compds. showed a biodistribution similar to 99Tcm-Py-glutamate and none of them was as good as 131I-labeled Rose Bengal. However, some of the complexes required a shorter prepn. time than 99Tcm-Py-glutamate. 99Tcm-Py-leucine and 99Tcm-Py-phenylalanine prepd. with only 15 min and 30 min of autoclaving, resp., gave a relatively fast gall bladder visualization as compared to 99Tcm-Py-glutamate. Their distribution study in mice also indicated relatively fast blood clearance and lower soft tissue uptake of the activity than the glutamate complex. In comparative imaging studies, the 99Tcm-Py-amino acid complexes were superior to the com. available 99Tcm hepatobiliary agents. However, further investigation of 99Tcm-Py-leucine and 99Tcm-Py-phenylalanine in higher animals and humans will be necessary to confirm their clin. utility.

1977:167194 Document No. 86:167194 99mTc-1-aminocyclopentane carboxylic acid: tumor and tissue distribution results on a labeled cytotoxic amino acid. Heindel, Ned D.; Risch, Victor R.; Adams, William E.; Honda, Takashi; Brady, Luther W. (Cent. Health Sci., Lehigh Univ., Bethlehem, Pa., USA). Int. J. Appl. Radiat. Isot., 27(11), 621-5 (English) 1976. CODEN: IJARAY.

AB A 99mTc chelate of a cytotoxic unnatural amino acid, 1-aminocyclopentanecarboxylic acid, was prepd. and its tumor and tissue distribution evaluated in hamsters due to its potential as a pancreatic tumor scanning agent. Elevated renal and liver levels were obsd. and the distribution displayed marked differences from a 14C analog.

1977:498177 Document No. 87:98177 Preparation of technetium-99m-labeled pyridoxal-amino acid complexes and their evaluation. Chiotellis, E.; Subramanian, G.; McAfee, J. G. (Nucl. Res. Cent. "Democritos", Athens, Greece). Int. J. Nucl. Med. Biol., 4(1), 29-41 (English) 1977. CODEN: IJNMCI.

AB Five new 99Tcm-pyridoxal(Py)-amino acid complexes for hepatobiliary imaging in mice were studied in comparison with 99Tcm-Py-glutamateand 131I-labeled Rose Bengal. These 99Tcm compds. showed a biodistribution similar to 99Tcm-Py-glutamate and none of them was as good as 131I-labeled Rose Bengal. However, some of the complexes required a shorter prepn. time than 99Tcm-Py-glutamate. 99Tcm-Py-leucine and 99Tcm-Py-phenylalanine prepd. with only 15 min and 30 min of autoclaving, resp., gave a relatively fast gall bladder visualization as compared to 99Tcm-Py-glutamate. Their distribution study in mice also indicated relatively fast blood clearance and lower soft tissue uptake of the activity than the glutamate complex. In comparative imaging studies, the 99Tcm-Py-amino acid complexes were superior to the com. available 99Tcm hepatobiliary agents. However, further investigation of 99Tcm-Py-leucine and 99Tcm-Py-phenylalanine in higher animals and humans will be necessary to confirm their clin. utility.

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AB A 99mTc chelate of a cytotoxic unnatural amino acid, 1-aminocyclopentanecarboxylic acid, was prepd. and its tumor and tissue distribution evaluated in hamsters due to its potential as a pancreatic tumor scanning agent. Elevated renal and liver levels were obsd. and the distribution displayed marked differences from a 14C analog.